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Method: The data were from a clinical trial, which included 56 volunteers in 4 groups: acupuncture group (GA), placebo-acupuncture group (GPA), dipyrone group (GD) and placebo-dipyrone group (GPD). The selected volunteers presented odontotalgia of pulpar origin with VAS (Visual Analogue Scale) above 4 and absence of medication for this pain in the last 12 hours. Before and after the therapeutic intervention of each group, the volunteers had their energy level measured by the Ryodoraku method. The data obtained were statistically analyzed in the BioStat program, using paired t-tests and ANOVA, adopting $p \leq 0.05$.

Results: The means and standard energy deviations before and after the interventions per group were GA: 10.714 ± 4.268 and 9.643 ± 4.814 ($p < 0.119$); GPA: 15.643 ± 7.448 and 13.214 ± 8.135 ($p < 0.007$); GD: 12.714 ± 6.069 and 11.071 ± 5.902 ($p < 0.112$); GPD: 11.571 ± 3.857 and 10.500 ± 5.273 ($p < 0.263$), respectively. The results showed a reduction in energy after interventions in all study groups, being significant only in GPA.

Conclusion: There was a reduction of energy in the sham acupuncture group, which corroborates with data from the literature on possible effects of placebo acupuncture.

EVALUATION OF THE H3K9AC IMMUNOEXPRESSION IN AMELOBLASTOMA

GLEYSON KLEBER DO AMARAL SILVA; THAYNÁ MELO DE LIMA MORAIS; ROGÉRIO MORAES DE CASTILHO; EDUARDO RODRIGUES FREGNANI; FERNANDO AUGUSTO SOARES; MARCIO AJUDARTE LOPES; ALAN ROGER SANTOS SILVA; PABLO AGUSTIN VARGAS

PIRACICABA DENTAL SCHOOL - UNICAMP

Aim: Acetylation of lysine 9 in histone 3 (H3K9ac) is a histone modification responsible for chromatin condensation level. Lower H3K9ac is correlated with less gene expression. H3K9ac immunoprecipitation changes were described in many human disease, however this was never reported in ameloblastomas (AME). Mismatch repair system (MMR) is responsible for avoid DNA mutation by wrong nucleotides pairing. The aim of this study was identified the H3K9ac immunohistochemical alterations between developing human tooth (DHT) and AME.

Method: After ethical committee approved (CEP/FOP 79140917.9.0000.5418), 10 DHT, and 58 AME (solid variant) were selected. Tissue microarray (TMA) technic was used to make a ameloblastomas TMA block. 3µm histological slices for immunohistochemical reaction (anti-H3K9ac, C5B11, Cell Signaling) were performed. All slides were digitized and quantified (Aperio Technologies, Leica Biosystems), and data values were statistically analyzed by Prism 8 (GraphPad Software, San Diego, California USA).

Results: The mean H3K9ac values were 71.79% and 58.39% (DHT and AME, respectively). Significant difference was observed between immunoprecipitation (t test with Welch's correction: $p = 0.0279$). In addition, comparisons among MMR proteins also showed significant reduction of msh3 ($p = 0.0207$) and msh6 ($p < 0.0001$), but not in msh2 ($p = 0.1126$), in AME.

Conclusion: Our results suggest that epigenetic changes involving histone modifications may be related to the development of ameloblastoma. H3K9ac reduction might be silencing gene expressions, such as mismatch repair system.

EVALUATION OF THE H3K9AC IMMUNOEXPRESSION IN LIP CARCINOGENESIS

MARIANA RODRIGUES ESTEVAN; GLEYSON KLEBER DO AMARAL-SILVA; BRUNO AUGUSTO MARIZ; VIVIAN PERTERSEN WAGNER; ALAN ROGER SANTOS-SILVA; MARCIO AJUDARTE LOPES; OSLEI PAES DE ALMEIDA; PABLO AUGUSTIN VARGAS

PIRACICABA DENTAL SCHOOL - UNICAMP

Aim: The aim of this study was identified the H3K9ac immunohistochemical alterations among lip normal mucosa (LNM), actinic cheilitis (AC), and lip squamous cell carcinoma (LSCC).

Method: After ethical committee approved (CEP/FOP 86496618.0.0000.5418), 46 LNM, 42 QA, and 40 LSCC were selected. 5µm histological slices stained in hematoxylin-eosin were performed for WHO and binary system classification for epithelial dysplasia and cancer differentiation, following by 3µm histological slices for immunohistochemical reaction (anti-H3K9ac, C5B11, Cell Signaling). All slides were digitized and quantified (Aperio Technologies, Leica Biosystems), and data values were statistically analyzed by Prism 8 (GraphPad Software, San Diego, California USA).

Results: The mean positivity values were 96.41% (LNM), 95.35% (AC), and 98.51% (LSCC). Significant difference was observed among groups (Kruskal-Wallis: $p=0.0007$), mainly between LNM-LSCC, and AC-LSCC (Two-stage Benjamini, Krieger, & Yekutieli: $p=0.0338$ and $p=0.003$, respectively).

Conclusion: Our results showed epigenetic alterations involving H3K9ac immunoprecipitation and lip carcinogenesis, suggesting a possible activation of silenced oncogenes and more occurrence of mutations.

EVALUATION OF THE INFLUENCE OF ARTEFACTS CAUSED BY TITANIUM IN CBCT IMAGES WITH AND WITHOUT METAL ARTEFACT REDUCTION

LUCIANO AUGUSTO CANO MARTINS*; POLYANE MAZUCATTO QUEIROZ; YURI NEJAIM; KARLA DE FARIA VASCONCELOS; FRANCISCO CARLOS GROPPPO; FRANCISCO HAITER-NETO

PIRACICABA DENTAL SCHOOL - UNICAMP

Aim: The present study aimed to evaluate quantitatively the metal artefact interference caused by titanium in different positions and quantities in the dental arch in images acquired in two CBCT devices on the dental and bone structures with or without Metal Artefact Reduction (MAR) tool.

Method: A PMMA phantom with 8 perforations simulating a dental arch, five lower premolars roots and five bone cylinders from a bovine rib to simulate the human bone structure were used in this study. Five titanium cylinders were gradually inserted on the adjacencies and on the opposite side of the roots and bone cylinders. Nine protocols differed according to the distribution and quantity of the metal cylinders: Control (no metal), A - G. The standard

deviation of the grey values around the root thirds, trabecular and cortical bone were quantified on the software ImageJ. The artefact expression between devices was evaluated by Wilcoxon test, the artefact expression on the protocols and MAR action by the Kruskal-Wallis test ($p < 0.0001$) with significance level of 5%.

Results: For teeth, Picasso ($p < 0.0001$) showed more artefact expression undependably of MAR activation and metal quantity. For both devices, Protocol F (3 metals on the adjacencies of the analysis region) showed more artefact expression when compared to the other protocols for the regions around the root and bone cylinders.

Conclusion: It may be concluded that the artefact expression caused by titanium is higher when more metal objects are presented on their adjacencies. The metal artefact reduction tools were effective on dental structures thus this evaluation was influenced by the device used.

EVALUATION OF THE MANIPULATION OF FILLING PASTES FOR ENDODONTIC TREATMENT IN PRIMARY TEETH

MARINA RODRIGUES SANTI; CARLOS EDUARDO FONTANA; SERGIO LUIZ PINHEIRO; SANDRA ECHEVERRIA

PUC CAMPINAS

Aim: The choice of the filler material for the root canal in pulp therapy of primary teeth is an important and basic principle for a successful treatment. It is important to know, the potential toxicity of the materials, the histological reactions and the biologic mechanisms that the material induces to repair.

Method: This study developed a specific dispenser for a proper proportion and manipulation of the components of Vitapex® paste (calcium hydroxide PA, iodoform and silicone oil) used in root canal filling in primary teeth. In addition, evaluated "in vitro", the antibacterial action on the population of the Enterococcus Faecalis, the most found bacterium in root canals, and compared with the trademark (Vitapex®) and a similar pharmacy Feapex® by Fórmula e Ação.

Results: The manipulated paste is the one that didn't showed statistics difference ($P \leq 0.05$) in relation of flowability and antibacterial action compared with Vitapex®.

Conclusion: The appropriate proportion of the powders and the silicone oil, also pre - dosed, allowed the reproduction of the original paste with the same flow and antimicrobial action, even better than a similar pharmacy.

EVALUATION OF THE MESIODISTAL TOOTH ANGULATIONS IN PATIENTS TREATED WITH THE JONES JIG FOLLOWED BY FIXED APPLIANCES

GABRIEL QUEROBIM SANT'ANNA; SILVIO AUGUSTO BELLINI-PEREIRA; ARON ALIAGA-DEL CASTILLO; LORENA VILANOVA; MARIA CLÁUDIA WAGNER; GUILHERME JANSON; JOSÉ FERNANDO CASTANHA HENRIQUES

BAURU DENTAL SCHOOL - USP

Aim: The purpose of this study was to evaluate the maxillary mesiodistal tooth angulations of Class II patients treated with the Jones Jig distalizer followed by fixed appliances and compared them with an untreated control group with normal occlusion.

Method: Total sample comprised 80 panoramic radiographs of 40 patients. The experimental group was composed by 60 radiographs of 20 patients treated with the Jones Jig followed by fixed appliances. The radiographs were taken at pretreatment (T0), post-distalization (T1) and post-treatment (T2). Moreover, the historical control group of normal occlusion comprised 20 radiographs of 20 patients. The axial angulations of all maxillary erupted teeth were evaluated by the software Dolphin Imaging 11.5. Intragroup treatment changes were compared with repeated measures Analysis of Variance, followed by Tukey tests, while intergroup comparisons were performed with t tests.

Results: At the post-distalization stage, the molars presented a significantly greater distal angulation, followed by mesial angulation at post-treatment, when compared to pre-treatment. In contrast, the premolars, canines and incisors showed a greater mesial angulation at the post-distalization stage, with a subsequent distal angulation at post-treatment. Intergroup comparisons resulted in first molars, premolars, canines and central incisors significantly more distal angulated in the experimental group, when compared to the control.

Conclusion: In general, patients treated with the Jones Jig distalizer followed by fixed appliances presented the maxillary teeth more distally angulated when compared to an untreated group with normal occlusion.

EVALUATION OF THE MICROBIAL LOAD AND LEVELS OF LIPOTEICOIC ACID IN CASES OF SYMPTOMATIC AND ASYMPTOMATIC PULP NECROSIS

BRENO FORCHETTI DA SILVA; EZEQUIEL GABRIELLI; AUGUSTO RODRIGUES LIMA; DANIEL RODRIGO HERRERA; PRISCILA AMANDA FRANCISCO; BRENDA PAULA FIGUEIREDO DE ALMEIDA GOMES

PIRACICABA DENTAL SCHOOL - UNICAMP

Aim: The objective of this study was to evaluate the reduction of microbial load and to determine the levels of lipoteicoic acid (LTA) in the cases of necrotic teeth of symptomatic patients and in cases of necrotic teeth of asymptomatic patients during the different stages of the endodontic treatment: before the chemical-mechanical preparation (CMP), after CMP and after intracanal medication (ICM).

Method: Twenty patients requiring endodontic intervention were selected, presenting or not pain symptomatology. Microbiological and LTA samples were collected from within the root canals. The CMP was performed with chlorhexidine gel 2% (CHX), and the intracanal medication used was calcium hydroxide and CHX 2% for 30 days. The culture method for quantification of colony forming units (CFU) was used to evaluate and efficacy of CMP and ICM in reducing microbial load. ELISA was used for quantification of LTA. The Friedman test was applied for comparison between the locations and moments of the collections and Mann Whitney for comparisons between the groups.

Results: There was a significant decrease in CFU after CMP in both groups ($p < 0.05$). There